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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/090,768

03/06/2002

Alain Brazeau

12661-US

6271

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02/25/2005

MARKS & CLERK

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CANADA

EXAMINER

WANG, QUAN ZHEN

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090,768

Applicant(s)

BRAZEAU ET AL.

Examiner

Quan-Zhen Wang

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by McCormack et al (U.S. Patent US 6,178,213 B1).

Regarding claims 1 and 8, McCormack teaches an adaptive data recovery system (fig. 4, fig. 3 and fig. 6) comprising: a means to receive and convert an optical signal to an electrical signal (fig. 6, optical receiver 133); a CDR (clock and data recovery) circuit (fig. 4, CDR 65; fig. 3, Clock Recovery 35 and DATA CHANNEL; fig. 6, elements 141a, 143a, 145, 147a, 149a, and 154) to resynchronize the electrical signal; a monitoring circuit (fig. 3, Monitor Channel; fig. 6, elements 141b, 143b, 145, 147b, 149b, 150, 151, and 153) to analyze the quality of the data eye pattern (column 5, lines 38-41) of the resynchronized signal (column 4, lines 44-51); and a processor (fig. 3, processor 45; and fig. 6; processor 145) to calculate a predicted bit error rate (BER) based on the data eye pattern (column 5, lines 42-49) and to provide feedback to the CDR circuit (column 8, line 15-40).

Regarding claims 2 and 9, the received signal by system of McCormack inherently has a range of frequencies.

Regarding claims 3-7, 10-15 McCormack further teaches that the processor programs the CDR to select and phase locks onto a first frequency (column 8, lines 7-11); the processor determines whether the first frequency is

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correct based on the quality of the data eye pattern (column 6, lines 48-57; and column 8, lines 7-14); if the first frequency is not the correct frequency the processor programs the CDR circuit to a new frequency and to monitor the data eye pattern of the new frequency (column 6, lines 48-57; column 8, lines 7-14); the processor programs the CDR circuit to scan through the frequencies until the correct frequency is selected (column 8, lines 7-14); and the processor programs the CDR circuitry to first select and lock onto lowest frequency of the received data signal (column 8, lines 7-14); the processor programs the CDR to lock onto the new frequency and the step of checking the predicted BER is repeated; the processor programs further frequencies into the CDR and the steps repeated until the correct BER is detected (column 8, lines 3-40).

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Marmur (U.S. Patent US 6,832,052 B1) discloses an optical transponder capable of effecting performance monitoring on the electrical signal equivalents of at least two different optical signal types each uniquely identifiable in terms of transmission protocol and/or bit rate.

McCormack et al. (U.S. Patent US 6,463,109 B1) disclose a multiple channel adaptive data recovery system.

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Halgren (U.S. Patent Application Publication US 2002/0105696 A1) discloses a transparent optical-electronic-optical switch in a DWDM network utilizing multi-rate conversion system.

Gallant et al. (U.S. Patent Application Publication US 2002/0122222 A1) disclose a data path transparent OEO switch.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quan-Zhen Wang whose telephone number is (571) 272-3114. The examiner can normally be reached on 9:00 AM - 5:00 PM, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

qzw


M. R. SEDIGHIAN
PRIMARY EXAMINER